

## REFERENCES

- DAY, F. (1878) : The Fishes of India. William Dawson, London.
- DE BEAUFORT, L. F. & CHAPMAN, W. M. (1951) : Fishes of the Indo-Australian Archipelago. E. G. Brill Ltd., Leiden.
- JERDON, T. C. (1851) : Ichthyological gleanings in Madras. *Madras Journ. Lit. Sci.* 17 : 128-151.
- RUSSELL, P. (1803) : Descriptions and figures of two hundred fishes collected at Vizagapatam. W. Bulmer and Co., London.
- SMITH, J. L. B. (1953) : Sea Fishes of South Africa. Central News Agency Ltd., Capetown.
- SWAINSON, W. (1839) : The Natural History and Classification of fishes, amphibians and reptiles, or monocardian animals. London.

## 8. TWO NEW SPECIES OF TRICHIURID FISH FROM WALTAIR<sup>1</sup>

(With a plate)

So far, four species of Trichiurids have been recorded from Indian waters: *Eupleurogrammus intermedius* (Gray), *E. muticus* (Gray), *Trichiurus lepturus* Linnaeus, and *Lepturacanthus savala* (Cuvier) (Day 1876; De Beaufort & Chapman 1951; Prabhu 1955; James 1959). Tucker (1956) has given the synonymy of these four species. In the course of studies on the biology and biometry of the Trichiurids of Waltair Coast, two new species have been observed, one under the genus *Trichiurus* and the other under the genus *Lepturacanthus*.

### ***Trichiurus russelli* sp. nov.**

**Holotype.** A fish, 419 mm. total length, from Waltair, Andhra Pradesh. Holotype deposited in museum of Department of Zoology, Andhra University, Waltair.

**Description.** Based on 30 specimens 257-465 mm. total length. D. III, 126-131; A. i+I, 100-104; P. I, 10; V. 0; Vert. 146-149.

Body proportions variable; depth 12.92-15.29; head length 7.14-8.20; post-anal length 1.48-1.55; length from snout to origin of dorsal 10.69-12.51 in total length; snout length 2.87-3.17 in head length; diameter of eye 1.55-1.81 in snout length; length of pectoral 1.60-1.96 in depth. Dorsal and pectoral fins not pigmented. Origin of anal below 33-36 dorsal rays. Caniniform teeth in both the jaws barbed. Silvery in colour.

<sup>1</sup> Communicated by Dr. T. S. Satyanarayana Rao.

*Occurrence.* This species is caught off Waltair in boat seines and gill nets. It was first noticed on 16 April 1962 when 12 specimens of this species were obtained along with 26 specimens of *T. lepturus*. Another 18 specimens were obtained during the course of 1963. The maximum size obtained was 465 mm. and the minimum size 257 mm.

*Diagnosis.* Until now only one species, *lepturus*, has been described under the genus *Trichiurus*; it has a world-wide distribution in the warmer waters (Tucker 1956; Rosa 1957) and has been considered as a 'variable species' (Tucker 1956). There is no doubt that in addition to *T. lepturus*, a second species is present. The salient characters of *T. lepturus* and *T. russelli* sp. nov. are compared in Table 1.

TABLE 1  
COMPARISON OF THE SALIENT CHARACTERS OF  
*T. lepturus* AND *T. russelli* SP. NOV.

No.	CHARACTER	<i>T. lepturus</i>	<i>T. russelli</i>
1.	Anal origin below dorsal rays	37-38	33-36
2.	Colour	Burnished or dull silvery	Pure silvery
3.	Pigmentation on fins	Three-fourths of dorsal and pectoral fins pigmented	Not pigmented
4.	Depth in total length	10.87-20.17	12.92-15.29
5.	Head length in total length	6.17- 7.68	7.14- 8.20
6.	Diameter of eye in snout length	1.62- 2.11	1.55- 1.81
7.	Length of pectoral fin in depth	1.23- 1.40	1.60- 1.96
8.	Post-anal length in total length	1.51- 1.67	1.48- 1.55
9.	Distance from snout to origin of dorsal in total length	8.87-10.74	10.69-12.51
10.	Dorsal fin rays	III, 128-132	III, 126-131
11.	Vertebrae	164-157	146-149

Named in honour of Patrick Russell who about one hundred and sixty years ago recorded over two hundred species of fishes from Visakhapatnam.

***Lepturacanthus serratus* sp. nov.**

*Holotype.* A fish, 357 mm. total length, from Waltair, Andhra Pradesh. Holotype deposited in museum of Department of Zoology, Andhra University, Waltair.

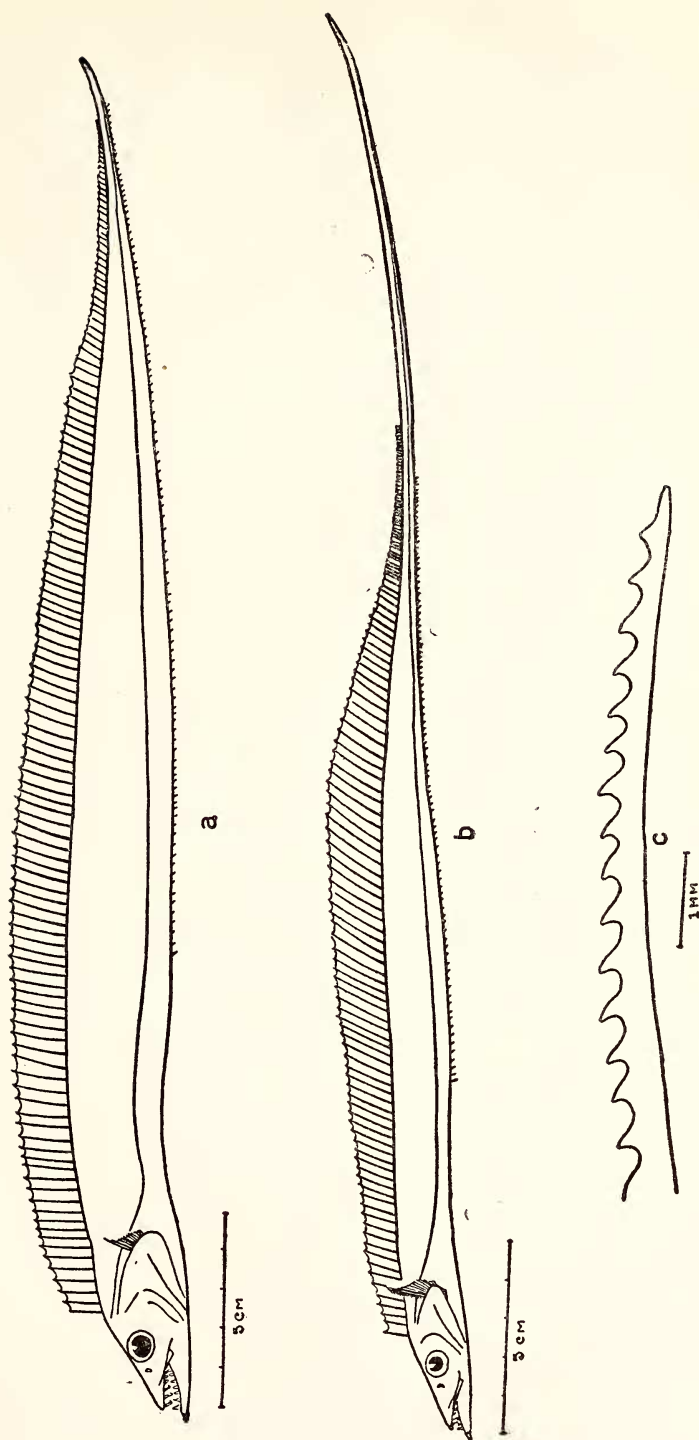


FIGURE. a, *Trichiurus russelli* sp. nov. From holotype; b, *Lepturacanthus serratus* sp. nov. From holotype; c, Camera lucida diagram of first pectoral spine of *L. serratus* sp. nov.

